

## ABSTRACT

Provided is a system for manufacturing a fullerene derivative whereby it is possible to heat electrons in a plasma highly efficiently and to attain the improved yield of a fullerene derivative. The system can generate a high electron temperature plasma using plasma generating means comprising a microwave generator, mirror field generating coil, and four phased helical antenna. Thus, with this system, the production efficiency of the ions of an atom which acts as a moiety in the production of a fullerene derivative is improved, and the yield of a fullerene derivative is also improved.